

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P651859

Luminaire Tested: **GALN-SA4A-840-U-T2R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P651859  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GALN-SA4A-840-U-T2R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15505.5 lumens  
Efficiency: N/A  
Efficacy: 128.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2

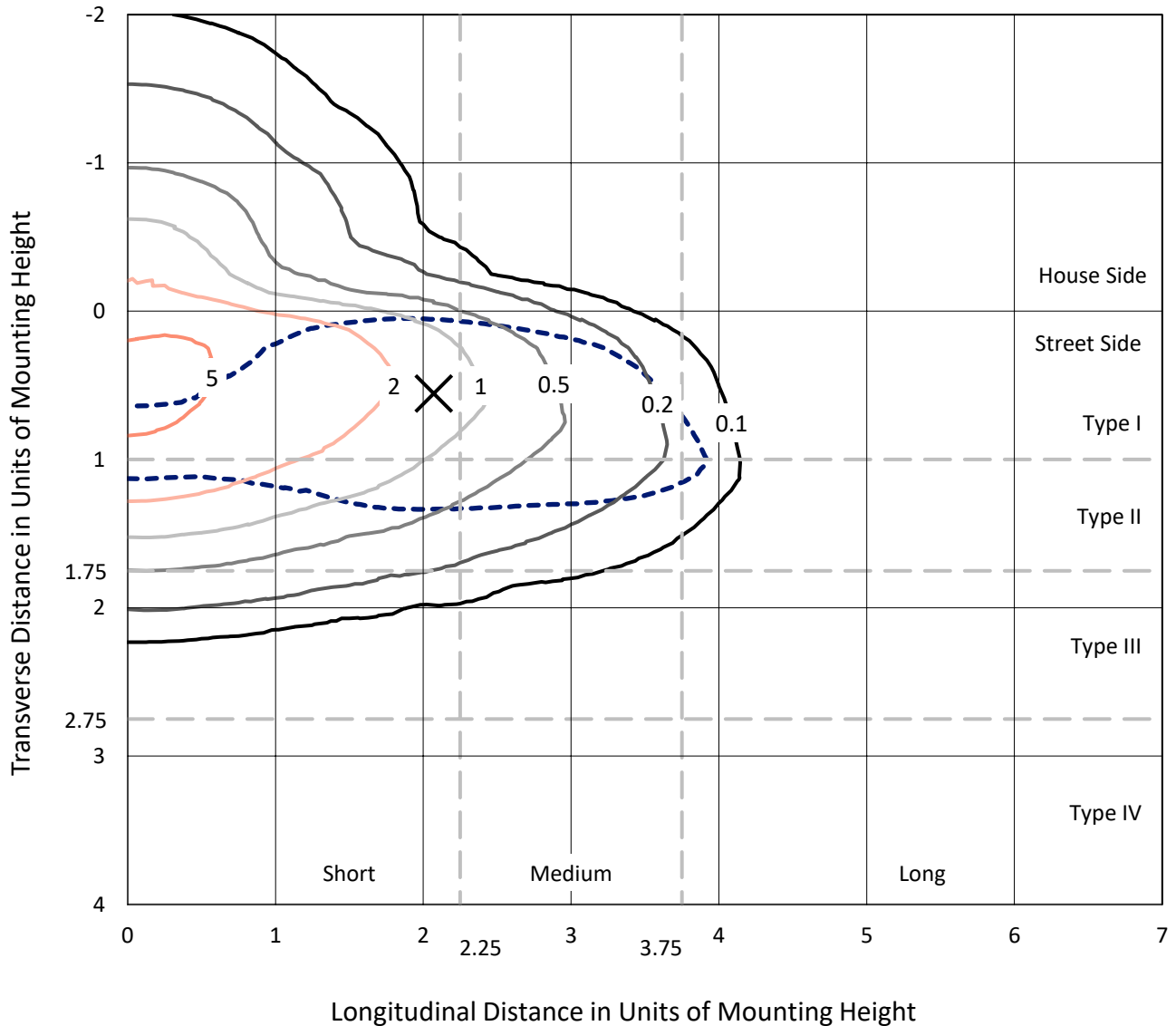
Input Watts (W): 121  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

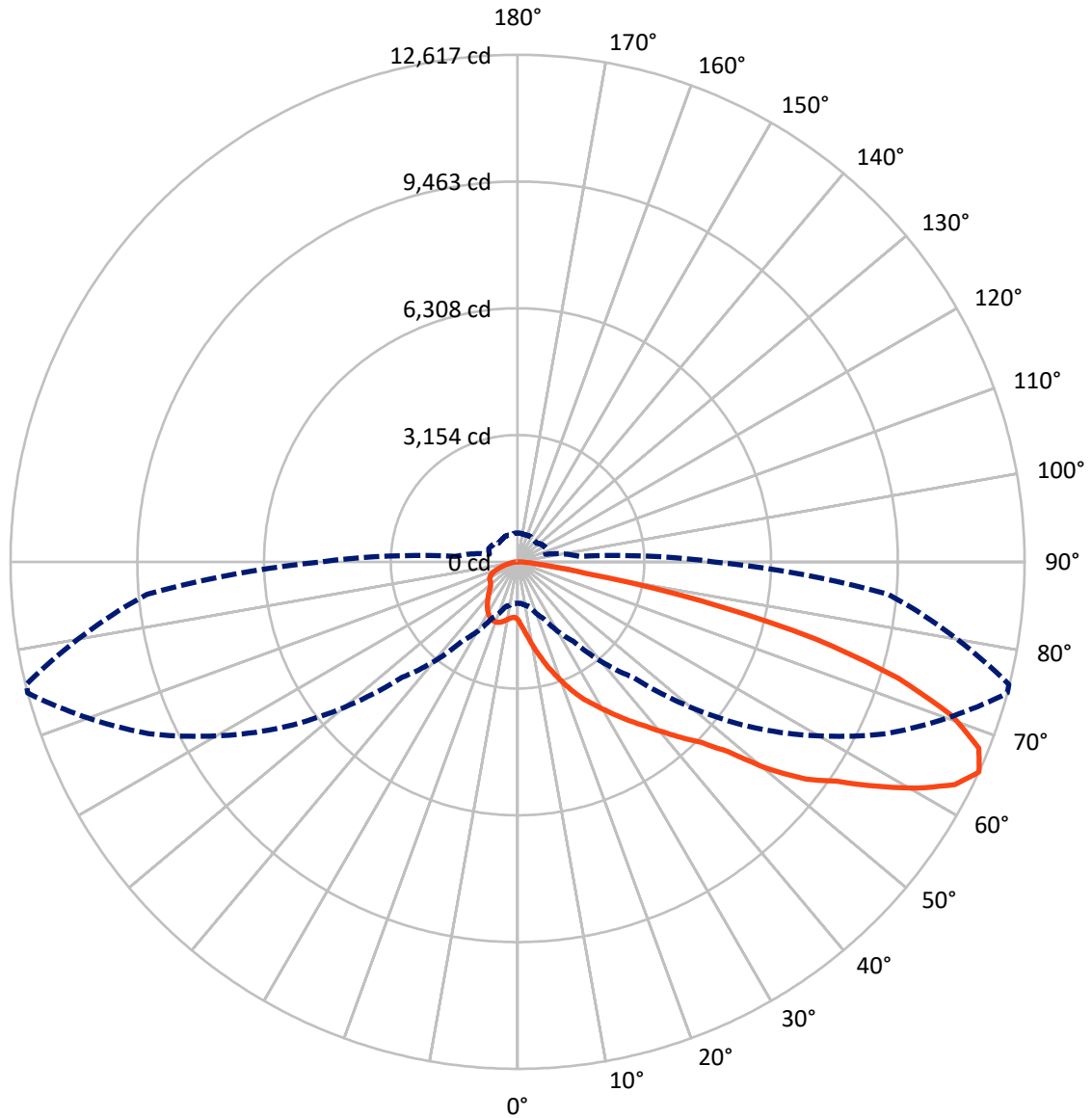
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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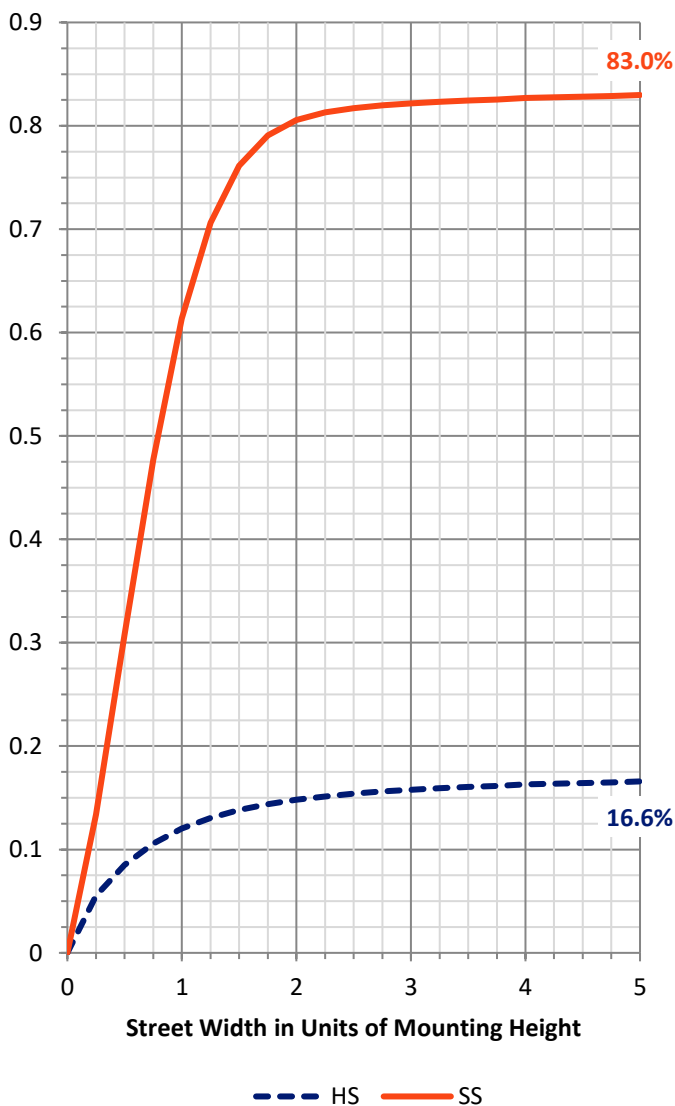
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2606.6	0.0	2606.6
	% Fixture	16.8	0.0	16.8
<b>Street Side</b>	Lumens	12898.8	0.0	12898.8
	% Fixture	83.2	0.0	83.2
<b>Total</b>	Lumens	15505.5	0.0	15505.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	175.0	1.1
10°-20°	685.6	4.4
20°-30°	1324.3	8.5
30°-40°	2151.1	13.9
40°-50°	2959.0	19.1
50°-60°	3493.6	22.5
60°-70°	3061.0	19.7
70°-80°	1461.3	9.4
80°-90°	194.4	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	15505.5	100.0
0°-180°	15505.5	100.0

**Coefficient of Utilization**



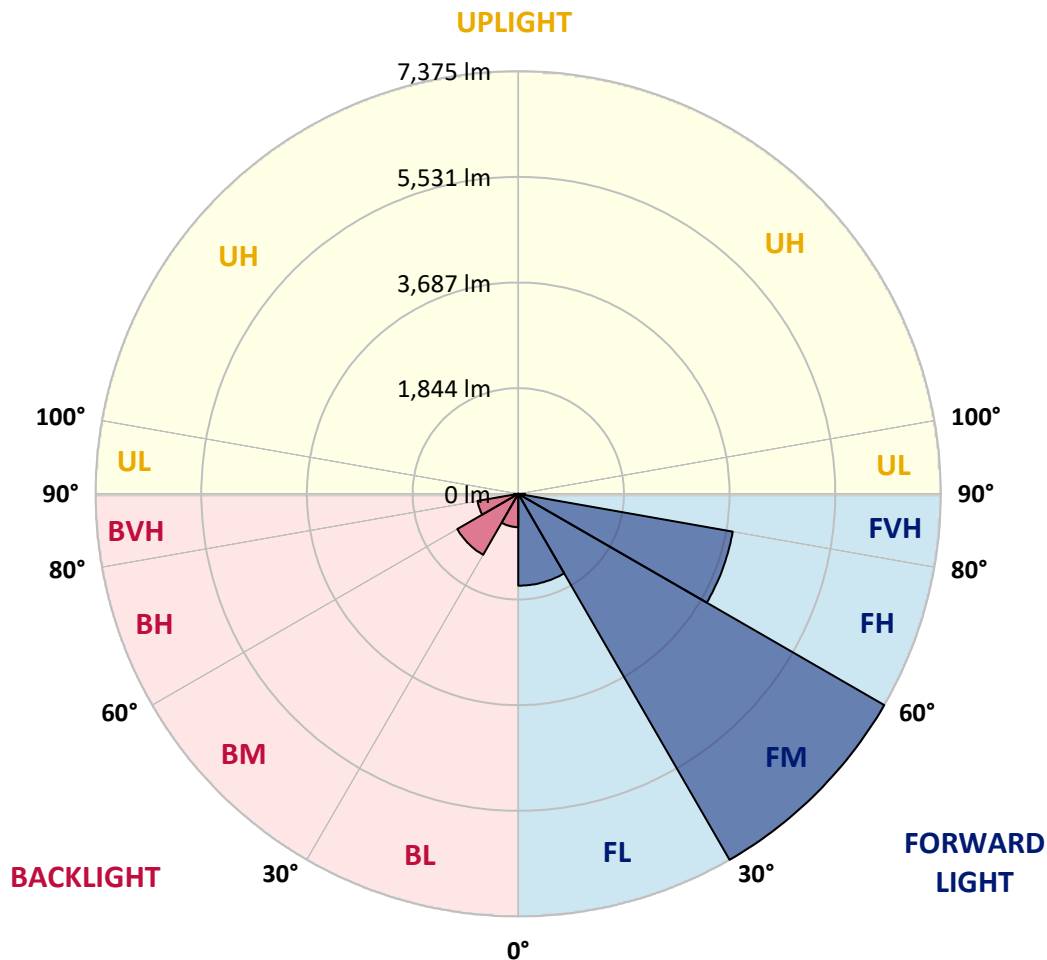
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1603.0	10.3			
FM (30°-60°)	7374.7	47.6			
FH (60°-80°)	3799.5	24.5			G2/5000
FVH (80°-90°)	121.5	0.8			G2/225
BL (0°-30°)	581.9	3.8	B2/1000		
BM (30°-60°)	1229.0	7.9	B2/2500		
BH (60°-80°)	722.8	4.7	B2/1000		G2/1000
BVH (80°-90°)	72.9	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6
2.5°	1914.1	1901.5	1888.0	1851.0	1811.5	1766.9	1703.0	1641.6	1560.1	1557.5	1497.0
5°	2444.9	2436.5	2376.7	2342.2	2250.5	2128.6	2025.1	1864.5	1715.6	1698.0	1580.2
7.5°	2932.7	2899.9	2877.1	2814.9	2724.1	2567.7	2367.4	2150.4	1901.5	1878.0	1682.8
10°	3300.2	3296.8	3285.0	3231.2	3163.1	3007.5	2785.5	2474.3	2137.0	2090.7	1807.3
12.5°	3575.2	3577.7	3576.0	3575.2	3526.4	3394.4	3153.8	2825.8	2375.0	2342.2	1951.1
15°	3756.0	3781.2	3791.3	3833.4	3837.6	3749.3	3542.4	3165.6	2643.3	2594.6	2105.9
17.5°	3875.4	3888.0	3935.1	4006.6	4064.6	4048.7	3864.5	3480.1	2917.5	2835.9	2266.5
20°	3989.8	4011.7	4047.8	4145.4	4248.0	4295.1	4165.6	3802.2	3189.2	3137.0	2444.0
22.5°	4227.8	4258.9	4271.5	4321.1	4408.6	4491.9	4433.0	4110.9	3486.9	3416.2	2632.4
25°	4630.6	4663.4	4628.1	4616.3	4644.9	4686.1	4673.5	4401.9	3767.8	3666.8	2810.7
27.5°	5155.4	5159.6	5090.7	5025.1	4954.4	4933.4	4894.7	4660.1	4011.7	3927.6	2989.8
30°	5718.9	5698.7	5584.3	5465.7	5346.3	5228.6	5117.6	4909.0	4283.3	4186.6	3165.6
32.5°	6242.0	6231.1	6104.1	5919.9	5718.0	5607.0	5382.5	5160.5	4574.3	4480.9	3346.4
35°	6633.9	6649.9	6510.3	6309.3	6088.9	5990.5	5707.1	5424.5	4875.4	4773.6	3543.2
37.5°	6912.3	6903.9	6780.2	6606.1	6412.7	6326.9	6086.4	5713.0	5199.1	5101.6	3758.5
40°	7011.5	7006.5	6914.8	6787.8	6665.0	6634.7	6483.4	6024.2	5570.0	5455.7	4017.5
42.5°	6948.4	6959.4	6898.8	6864.3	6841.6	6863.5	6877.8	6432.1	5974.5	5869.4	4298.4
45°	6755.0	6749.1	6740.7	6797.0	6924.9	7068.7	7268.1	6817.2	6414.4	6330.3	4675.2
47.5°	6409.3	6451.4	6472.4	6628.0	6907.2	7247.9	7717.2	7333.7	7052.7	6979.5	5249.6
50°	5925.8	5959.4	6083.9	6360.6	6776.9	7315.2	8156.2	8178.1	8117.5	7980.4	5873.6
52.5°	5170.6	5222.7	5479.2	5986.3	6509.4	7287.4	8421.9	8902.2	8982.0	8879.4	6488.4
55°	4325.3	4398.5	4669.3	5334.5	6141.1	7136.0	8605.3	9321.8	9640.6	9545.5	7080.5
57.5°	3497.8	3575.2	3853.5	4497.8	5498.5	6801.3	8725.5	9789.4	10537.1	10413.4	7817.3
60°	2621.5	2702.2	2941.1	3604.6	4583.5	6147.0	8644.0	10194.8	11432.7	11379.7	8554.8
62.5°	1691.3	1780.4	1988.1	2537.4	3523.0	5253.0	8207.5	10418.5	12208.2	12144.3	9093.1
65°	1030.2	1040.3	1154.7	1575.2	2411.2	4067.2	7209.2	10121.6	12616.9	12597.6	9257.1
67.5°	666.1	682.1	734.2	943.6	1445.7	2825.0	5764.3	9141.8	12378.1	12371.4	8918.1
70°	562.6	567.7	591.2	636.6	840.2	1713.1	4047.8	7580.1	11470.6	11470.6	8103.2
72.5°	502.9	509.6	518.1	532.4	599.6	970.5	2415.4	5900.5	9903.8	9969.4	6897.1
75°	456.7	455.0	460.0	462.6	511.3	634.1	1248.9	4364.0	7661.7	7530.5	4994.8
77.5°	391.1	393.6	391.1	402.0	451.6	482.7	634.1	2928.4	4643.2	4473.4	2507.1
80°	321.3	325.5	329.7	336.4	386.0	366.7	381.0	1334.7	1717.3	1681.2	774.6
82.5°	241.4	247.3	254.0	270.0	303.6	242.2	240.5	570.2	619.8	567.7	285.1
85°	97.6	115.2	174.1	190.1	190.9	132.9	148.0	238.0	253.1	247.3	111.9
87.5°	22.7	26.9	56.3	84.9	78.2	49.6	54.7	77.4	88.3	81.6	37.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6	1440.6
2.5°	1469.2	1439.8	1389.3	1350.6	1322.9	1298.5	1283.4	1274.1	1270.8	1269.9	1270.8
5°	1518.8	1466.7	1386.8	1336.3	1308.6	1292.6	1283.4	1282.5	1283.4	1284.2	1281.7
7.5°	1587.0	1512.1	1407.8	1360.7	1339.7	1327.9	1323.7	1322.1	1322.9	1322.1	1322.1
10°	1677.8	1575.2	1449.0	1400.3	1382.6	1369.1	1362.4	1358.2	1354.9	1351.5	1349.8
12.5°	1777.9	1645.0	1493.6	1446.5	1421.3	1400.3	1385.1	1374.2	1366.6	1359.1	1357.4
15°	1889.7	1719.0	1543.2	1477.6	1441.5	1410.4	1384.3	1366.6	1353.2	1342.2	1341.4
17.5°	1996.5	1788.8	1576.9	1491.9	1439.0	1395.2	1360.7	1336.3	1319.5	1305.2	1303.6
20°	2110.9	1855.2	1592.0	1482.7	1413.7	1360.7	1315.3	1285.9	1266.5	1250.6	1248.0
22.5°	2226.1	1911.6	1590.3	1453.2	1370.0	1307.8	1259.8	1228.7	1206.0	1190.0	1184.1
25°	2336.3	1957.0	1569.3	1406.2	1309.4	1244.7	1195.9	1167.3	1147.1	1127.8	1127.8
27.5°	2435.6	1983.9	1529.8	1349.0	1247.2	1179.1	1140.4	1114.3	1095.8	1083.2	1075.6
30°	2533.2	1996.5	1476.0	1276.6	1181.6	1123.6	1092.5	1077.3	1060.5	1046.2	1044.5
32.5°	2620.6	1994.0	1408.7	1206.0	1119.4	1078.2	1065.5	1053.8	1036.1	1015.9	1010.9
35°	2705.6	1977.2	1328.8	1128.6	1067.2	1051.2	1054.6	1037.8	1005.8	980.6	976.4
37.5°	2798.1	1946.9	1241.3	1065.5	1023.5	1038.6	1047.0	1010.0	957.9	918.4	909.1
40°	2904.9	1912.4	1150.5	1002.5	989.0	1026.9	1026.9	958.7	887.3	862.9	856.1
42.5°	3030.2	1883.8	1074.8	949.5	960.4	998.3	994.1	890.6	861.2	848.6	845.2
45°	3228.7	1873.7	996.6	903.2	936.9	964.6	930.1	867.1	850.3	840.2	836.8
47.5°	3542.4	1885.5	927.6	868.8	910.0	931.0	858.7	851.1	839.3	825.0	823.3
50°	3833.4	1874.6	878.8	849.4	886.4	890.6	829.2	831.7	825.0	809.0	805.7
52.5°	4071.4	1840.1	847.7	839.3	866.2	820.0	801.5	810.7	808.2	788.0	784.7
55°	4332.9	1819.1	832.6	839.3	852.8	758.6	775.4	788.9	785.5	771.2	770.4
57.5°	4650.0	1823.3	821.7	841.8	839.3	727.5	749.3	765.3	764.5	760.3	760.3
60°	4974.6	1825.0	804.8	841.0	823.3	703.1	722.4	745.1	746.8	749.3	749.3
62.5°	5082.2	1751.8	772.0	825.9	788.0	679.5	697.2	728.3	726.6	733.4	734.2
65°	4881.2	1549.1	723.3	791.4	742.6	662.7	677.8	706.4	697.2	714.8	718.2
67.5°	4443.1	1281.7	647.6	729.1	692.1	645.0	665.2	676.2	659.3	693.8	694.7
70°	3840.1	1000.8	551.7	640.8	635.0	626.5	655.1	638.3	614.8	656.8	648.4
72.5°	3211.0	764.5	440.7	523.9	558.4	598.8	637.5	589.5	556.7	569.4	554.2
75°	2412.1	565.2	354.1	410.4	465.1	559.3	621.5	530.7	480.2	468.4	465.1
77.5°	1229.5	369.2	264.9	307.0	349.0	505.4	599.6	461.7	397.8	379.3	370.9
80°	439.0	229.6	186.7	211.9	235.5	434.8	523.9	381.8	308.6	305.3	308.6
82.5°	203.5	148.0	125.3	138.8	139.6	290.1	399.5	285.1	234.6	356.6	301.1
85°	87.5	74.0	70.6	69.0	63.9	129.5	224.5	153.1	238.8	106.8	98.4
87.5°	26.1	29.4	26.1	19.3	14.3	14.3	22.7	8.4	5.9	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)